

CABARET

Results if

SELF-TEST PROCEDURE

IMPORTANT NOTE TO OPERATORS

If the game's service manual, the TV monitor manual, or the schematic sheets were not included with the game when you unpacked it, contact your distributor to get free copies. (All Atari manuals for coinoperated games also include complete illustrated parts lists.)

Instruction	lest Passes					
 Set self-test switch to on posi- tion (see Figure 5). 	After about 3 seconds, the TV monitor displays the picture below.					

CENTER COIN MECH MULTIPLIER (LEFT MECH OF A 2-MECH DOOR) RIGHT COIN MECH MULTIPLIER SWITCH SWITCH TOGGLE 8 TOGGLE 1 SWITCH SWITCH **AT M10** AT P10 (TOP ONE) (BOTTOM ONE) DISPLAY OF COMPLETE CHARACTER SET

RAM FAILURE is indicated by a sequence of 1 to 10 tones. You will hear a short low tone for each good RAM chip, and a long high tone for a failing RAM chip. The test stops with the first failing RAM-chip pair (example, J2 and H2 are a pair). To restart the sequence, press the reset pushbutton on the Battlezone™ Analog Vector-Generator PCB, or set the self-test switch to off, then again to the on position. Identify the bad RAM chip with the table below. Example: four short low tones followed by a long high tone indicates failure of RAM at location B2.

Results if Test Fails

ong High Tone	Bad RAM Chip Loca
1st	J2
2nd	H2
3rd	A2
4th	A1
5th	B2
6th	B1
7th	C2
8th	C1
9th	D2
10th	D1

ROM/PROM FAILURE is indicated by two columns of numbers on the left side of the screen. The number in the left column indicates the location of the failing ROM/PROM(s). Identify the bad ROM/PROM with the table immediately below Ignore the hexadecimal numbers in the right column.

Displayed No.	Failing ROM	Failing PROM
0	B/C3*	B/C3*, E3
1	A3	A3, F/H3
2	E1	
3	F/H1	
4	J1	
5	K1	
6	L/M1	
7	N1**	

*If ROM or PROM B/C3 is bad, you will hear a continuous low tone, and the program may be unable to display a screen image.

**If ROM N1 is bad, program will be unable to produce tones in RAM test

MATH BOX FAILURE is indicated by a single letter displayed in the upper right corner of the display. Math-box failure is explained in the Signature Analysis Procedure, on the game schematic Sheet 1, Side B. Identify the failure with the table below

Displayed Letter	Failure
T	Time out error
н	Data error-high byte
L	Data error—low byte

INCREASE:

TURN CLOCKWISE

You will not hear a low or high beep for the defective switch

Game Price Settings

The white block below contains the manufacturer's suggested settings. All numbers 1 thru 8 are toggle settings on the 8-toggle switch at location P10, on the BattlezoneTM Analog Vector-Generator PCB (the top switch assembly).

	¢ PER	Во	Nus 3 play	/s	\$.50 = 1 play \$.75 = 2 plays \$1.00 = 3 plays							
Straight 25¢ Door	On On	7 On	6 On	5 On	3 On	7 Off	6 Off	5 On	8 On	7 On	6 Off	5 On
defit sales.	On On	3 On	Off	Off	4 On	On	Off	Off	4 On	On	Off	Off
25¢/\$1.00 Door or	8 On	7 On	6 On	5 On	3 On	7 OH	6 Off	5 On	4 On	7 On	6	5 On
25¢/25¢/\$1.00 Door	On On	Off	Off	Off	(5) 4 On	3	2 Off	Off	(5) 4 On	3 Off	Off	Off

25¢ PER PLAY:

	5		nus 3 play	S1.00 = 5 plays								
Straight 25¢ Door	8 On	7 On	6 On	5 On	8 On	7 On	6 Off	5 On	8 On (7)	7 Off	6 On	5 On
	(2) 4 On	On	Off	0n	On On	On On	Off	1 On	On On	3 On	Off	0n
25¢/\$1.00 Door or	8 On	7 On	6 On	5 On	8 On	7 On	6 Off	5 On	8 On	7 Off	6 On	5 On
25¢/25¢/\$1.00 Door	On	3 Off	2 Off	1 On	4 On	3	2 Off	1 On	(7) 4 On	3 Off	Off	1 On

Circled numbers refer to coin-door labels you should use with each situation.

Note: Battlezone cannot be set for a 2-coin minimum.

For your information, we have defined below the switch settings for those options relating to game price, coin mechanism multipliers, and bonus play. This information is useful in case you

BATTLEZONE ANALOG

OPERATOR OPTION SWITCH

POWER ON/OFF SWITCH

(3)

need to temporarily set the BattlezoneTM game on free play, or if you have German coin mechanisms in your door.

		le Setting: 3 (at P10).						
8	7	6	5	4	3	2	1	Option
						On On Off Off	On Off On Off	Free play 1 coin* for 2 plays 1 coin* for 1 play 2 coins* for 1 play
				On On Off Off	On Off On Off			Right coin mech × 1 \$ Right coin mech × 4 Right coin mech × 5 Right coin mech × 6
			On Off					Center coin mech × 1 \$ (Both these settings affect the left mech in a 2-mech door)
On	On	On			1	1		No bonus coins
On	On	Off						For every 2 coins* inserted, game logic adds 1 more coin*
On	Off	On						For every 4 coins* inserted, game logic adds 1 more coin*
On	Off	Off						For every 4 coins* inserted, game logic adds 2 more coins* \$
Off	On	On						For every 5 coins* inserted, game logic adds 1 more coin*

panel switches and coin door switches. When satisfied with test, set self-test switch to off posi-

2. Activate slam

switch, all control

3. Sounds Test (Optional)

You may test the hardware generated sounds by starting a game and proceeding as follows:

Engine Rumble (Idle): Should be heard as soon as start button is

As switch activates,

you'll hear a high

beep.

you'll hear a low beep

As switch deactivates,

Engine Rumble (Active): Pushing both control handles forward should cause an increase in pitch. Releasing control handles

should cause engine rumble to return to idle.

Loud Shot: Press the fire button.

Loud Explosion: Heard when you get hit, indicated by cracked

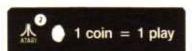
Soft Explosion: Is heard when you hit an enemy tank or another object.

*In the U.S., a "coin" is defined as 25¢ In Germany a "coin" is 1 DM. VECTOR-GENERATOR PCB \$ Manufacturer's suggested settings To achieve bonus plays, all coins must be inserted before pushing

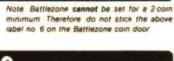


● 2 coins = 1 play









(2 coins = 2 plays)



Game Option Settings

To change toggle positions on the switch assemblies, you need not remove the game PCB. The switches, usually colored blue, are easily accessible when the Battlezone Analog Vector-Generator PCB is mounted in place.

When changing the options, verify proper results on the TV monitor display by performing the self-test. Note that changing an option on any of the following eight toggles will cause an imme-

To		ngs of 8-To					#10)	SAFETY
8	7	6	5	4	3	2	1	Option
						On On Off Off	On Off On Off	Game starts with 2 tanks Game starts with 3 tanks Game starts with 4 tanks Game starts with 5 tanks
				On On Off	On Off On Off			Missile appears after 5,000 points Missile appears after 10,000 points Missile appears after 20,000 points Missile appears after 30,000 points
		On On Off Off	On Off On Off					No bonus tank Bonus tank at 15,000 and 100,000 points Bonus tank at 25,000 and 100,000 points Bonus tank at 50,000 and 100,000 points
On Off On Off	On On Off							English language \$ French language German language Spanish language

SELT-TEST SWITCH

VOLUME CONTROL

Coin Counter Option Settings

[These toggles determine which coin mechanisms activate which counters]

		ngs of 4-T me PCB (For Games Having These Coin Doors:	Option
		On	On	Thai 1 Baht/1 Baht, German 1 DM/1 DM, U.S. 25¢/- 25¢, Belgian or French 5 Fr/5 Fr, Swiss or French 1 Fr/1 Fr, U.S. 25¢/25¢/25¢, Japanese Y100/Y100, Swedish 1 Kr/1 Kr, U.K. 10 P/10 P, Australian 20¢/- 20¢, or Italian 100 U100 L	All 3 coin mechanisms are same denomination; all register on one coin counter.
Not Used	t Used	Off	On	German 2 DM/1 DM, German 1 DM/5 DM, U.S. 25¢/- 25¢/\$1, or U S 25¢/\$1	Left and center mechanisms are same denomination; right mech is another denomination. Requires two coin counters.
ž	No	On	Off	No coin door is currently designed for this config- uration.	Left mech is one denomina- tion; center and right mech are another denomination. Requires two coin counters.
		Off	Off	German 1 DM/2 DM/5 DM.	Left, center and right mechs are 3 different denomina- tions. Requires three coin counters.